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Those Rare and Endangered State-listed Species: Who Is Minding the Store?

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Ambystoma's February march

"Spring on the Delmarva starts early, and those who shiver quickly, believe in winter, or prefer to remain by the home fires till the late March thaw know of little except their yellow and purple crocuses. Spring first shows itself in the annual sex rites of the tiger salamander, rites so sacred they are witnessed only by a few persistent herpetologists."

With that introductory paragraph, in 1975 I published a popular article about a decade of experience with one of the rarest animals of Maryland. I hoped that through my rambling account others would discover how damn interesting these salamanders are. For example, did you know there is a type of alga that grows only in the egg masses of these salamanders? The algae get free lodging in the gelatinous, greenhouse-like, egg masses and pay the salamanders back by producing oxygen for the developing embryos. How clever is that? Throughout the 1960s and early '70s I spent a lot of time trying to learn about tiger salamanders. By 1961, when I first saw them, there was but a single known breeding population. It was scattered throughout a few isolated ponds in central Kent County. The account that follows is about a sad and inadequate attempt to preserve the species at its last remaining stronghold in the state.

Like other amphibians, tiger salamanders have a two-part life history. The lung-breathing adults live on land, and are woodland creatures stalking prey in damp leaf litter and hiding by day in mole runs and under mossy stumps and logs. Between late December and mid-February they migrate long distances on rainy winter nights to quiet ponds where they leave their egg masses. Their larval young are aquatic and restricted to the breeding ponds for about six to eight months. These ponds have specific ecological requirements for both the developing eggs and the fast-growing, gilled aquatic young.

The documented history of tiger salamanders in Maryland is brief. Soon after being discovered in the '50s, most populations disappeared because of habitat loss, and by the '60s the species was restricted to the one small area on the upper Delmarva. Over time the total remaining population in the state was for the most part dependent on a single man-made pond near Massey in Kent County. Nearly everything we know about this species on a local level was learned from studies conducted in and around this single pond. Now it too is in trouble, serious trouble, and this interesting amphibian may no longer be part of the state's fauna.

One can surmise that these salamanders had a long zoogeographic history. Their historic distribution was probably set in the Pleistocene with the species working its way northward on the Atlantic coastal plain when sea levels were lower and prior to the formation of the Chesapeake and Delaware Bays (ca 15,000 years before government administrators). These amphibians must have lived on the Delmarva for minimally many thousands of years prior to the arrival of pre-Columbian man. Perhaps I should just feel honored that they even managed to persist here into my lifetime.

Tiger salamander larvae are voracious feeders, growing quickly until they become the top predators of the breeding ponds. In a food study conducted in the Massey pond I recovered 1,259 identifiable prey items from 42 larvae. The larvae were feeding primarily on swimming and bottom-dwelling aquatic insects, and crustaceans. A few had eaten cricket frog tadpoles. They were not specialized feeders, but it was clear that they needed a large and variable prey base. In the Massey pond the 3½- to 4¼-inch larvae contained an average of 30 food items each. The overall productivity of the pond was a key factor in their survival and growth. At that time these salamanders also bred in a smaller pond several miles away. The site was heavily vegetated and the surrounding forest shaded the water. Here the larvae, which like the others were only a few months old, were about 15% smaller, were less abundant, had a less varied diet, ate smaller prey and were heavily parasitized by two species of nematodes that were totally absent in the larvae of the larger pond. Because of the reduced oxygen in the pond, a result of decomposed leaf litter, the larvae in this smaller pond had noticeably larger gills.

Promises, promises

Despite this salamander's rarity in Maryland, by the early 1970s the situation looked promising. Earth Day had become a tradition, and people were becoming more aware of environmental issues. The state had established its own endangered species program. A group of us from the Maryland Natural History Society were asked by the Department of Natural Resources to prepare a position paper on the rare and endangered reptiles and amphibians of the state. Of course the tiger salamander, by then reduced to a single known viable population, was high on the list. To our amazement the state adopted our 1972 recommendations and the species became protected by law. Because of the high importance of the single site to the species' survival in Maryland, the Nature Conservancy purchased the property. The 130+ acre site was in turn sold to the state for $292,785 in April 1999. In 2003 a land management plan was approved for the site and the pond was designated as a nontidal wetland of special state concern. In addition to the endangered tiger salamander the state-endangered lowland loosestrife was also identified as growing adjacent to the pond. The condition of the Nature Conservancy's sale was the continued stewardship of the property for the tiger salamander population. The adjacent Millington Wildlife Management Area was to manage the site, thus assuring on-site staff to oversee the protection of the pond. The "prevailing goal for

this site [was] the protection of the tiger salamander breeding pond and surrounding life zones." Plans for the enhancement of the property to expand the existing tiger salamander population through the restoration of another existing pond and the creation of a new one were on the table. Of all the species of reptiles and amphibians that we originally considered as endangered in the state, at last here was one that being protected. Furthermore its population would be enhanced through land management. It was logical to believe that the other listed species would now also be receiving overdue protection and, where needed, management. These are activities that state wildlife agencies have been successfully conducting for game species for decades. Things were looking good.

Promises broken

Well, then almost nothing happened—at least nothing that helped the salamanders. The pond sat; trees from the surrounding forest were harvested by the state, while new trees were planted in a field adjacent to the pond (some darn government grant program that had nothing to do with the salamanders). And over time the pond gradually silted in. What became of the salamanders? There was no evidence that anyone had been tracking the site. Maryland was in a cooperative program with the U.S. Fish and Wildlife Service to monitor populations of native amphibians, so the decline of the tiger salamander population must have been known by the state. The amateur herpetologists who had kept notes on the tiger salamander's population for three decades were no longer allowed to visit the site as it was now "protected." The state would not share any information that it had subsequently obtained, and in the published proceedings of a 1984 symposium on the threatened and endangered plants and animals and animals of Maryland, the species was not even mentioned. The proceedings were published by the Maryland Department of Natural Resources. In the years that followed the conservation listing nothing was published on the state's tiger salamander population. Had new sites been discovered? Was the species still extant? With a three- to four-million-dollar a year budget for such matters, and a number of staff biologists, surely someone was assigned to look after this species. But as it turns out this was not the case.

Along comes Charlie

Now want to hear something really scary? By the late 1990s I could not find anyone who had even seen a tiger salamander in Maryland during the previous five years. My friend Charlie Stine also became concerned. Charlie was one of two amateur herpetologists who first discovered the species in Maryland in the 1950s. He continued to track the salamanders each year, counting egg masses, monitoring the pond's water chemistry, and documenting the decline and eventual loss of the smaller, less healthy populations on the Delmarva. Originally he also reported these salamanders from the western side of the Bay in southern Maryland, but that breeding pond was destroyed by a golf course. The other locality he found on the Delmarva also disappeared, so by the mid-'60s the few Kent County sites were all that remained of what was obviously once a more locally widespread species.

Concerned, Dr. Stine called the Department of Natural Resources only to be told that this was an endangered species and the information as to its occurrence was not available to the public. He pointed out that he knew the location of the remaining sites, and was just inquiring as to the status of the population. This too was sensitive information. Well, he had seen the pond and how it had changed over time but had decades of data on the population size in the past and he would like to compare that as to what it was now. The state was not interested in his "historic data" and if he were to work in the pond he would need to have a permit. Starting in 2002 several letters were sent to the people overseeing nongame species explaining the issues. Dr. Stine had documented a steady drop in the number of eggs deposited in the Massey pond since the early 1980s. The numbers fluctuated considerably because of weather conditions and the hydroperiod of the soils and of course the water levels of the pond. However by 2003 the total number of eggs was at an all time low, only 2.8% of the highest count in the early 1980s.

Even after sharing this alarming information with the state Charlie got no serious response. By this time he was pissed. It would be interesting to know how many letters, phone calls, newspaper interviews, and follow-up attempts he made to get to the bottom of what was really a simple alpha level issue. He made an appointment with the assistant director of Natural Resources and got a runaround. After several years of this he finally was granted a permit, allowing him to actually get in the pond and see firsthand what was taking place. (I heard later from several DNR staff members that the administration had actually alerted enforcement people about Dr. Stine and they would like for nothing better than to catch him illegally trespassing at the site. Was this the reason his permit request was processed so slowly?) With permit finally in hand Dr. Stine called me and we picked a spring date when egg masses should still be visible. If they had already hatched we were prepared to seine for the larvae. We arranged to meet at the pond on a Saturday morning in mid-March.

It was still winter for lesser creatures. Snow geese were in the fields, and we saw a wintering golden eagle eating road kill along the Massey road. I had not seen the pond for several decades and drove past it twice before I realized it was THE pond. The woodlands had crept in from three sides and shrubs were everywhere along the shallow edges. The bottom of the pond was carpeted with grasses and sedges; this was a clear water pond with an open sandy bottom through the mid-'70s. Charlie and one of his former students pulled up, looked and the pond and gestured, "See what I mean?" We pulled on our hip boots and proceeded to look for egg masses. The four of us (Charlie and I and two helpers) looked for several hours but did not find a single egg mass. Charlie was disgusted; the lack of egg masses and the successional state of the pond told him we were wasting our time. While the rest of us continued to look Charlie took a number of water quality tests. I suggested we seine a portion of the pond just to make sure we were not overlooking the salamanders. I actually had the same seine I used in the early '70s to collect larvae for our food study. It was now hard to work, submerged sticks and branches tangled in our net. Yet it was refreshing to see Charlie, now 80-some-

thing, thigh deep in water pulling his end of a seine bogged down with waterlogged branches and leaf litter. (In earlier years the open nature of the pond made seining an efficient sampling technique.) Charlie and I caught very few aquatic insects, indicating that the former prey base was reduced, but more importantly we seined up a number of sunfish. Ahhhhh! It's rather well understood that most species of amphibians do not fare well in ponds that support fish. In fact, ponds with established fish populations are largely avoided by most breeding salamanders, frogs and toads. In the '70s I documented nine species of frogs and toads using this particular pond as a breeding site. Yet, we did not catch a single tadpole. Marbled salamanders that had also used this site were absent too, even though this was a prime time to encounter their larvae.

Charlie's water tests were informative; the pH showed acidity levels that are not favorable to the salamanders or their larvae. The change in pH apparently resulted from the decomposition of grasses and fallen leaves from the encroaching forest, and planted trees. Hey, and there we were, four of us, three cars, and milling about in clear view for the better part of a day, seining a protected pond and probing it with science tools. Did anyone check our permits to work in a protected and guarded conservation site? Permits that required two seasons to obtain. (I should add it was site directly across from the headquarters of the state's wildlife management area.) Hell no, it was a Saturday; everyone knows state employees don't work on weekends. If imaginary collectors of rare Maryland reptiles and amphibians actually existed, I suspect they would have learned decades ago to go about their work on weekends.

After a follow-up report about our visit, it was comical to see the spin the state put on its own neglect. While they admitted that they did not know there were predatory fish in the pond, they concluded this was natural, ignoring the fact that it was an introduced non-native species, and that in decades of our monitoring the pond prior to the state's ownership bluegills were never encountered. They suggested to Dr. Stine that the larval fish rode in on the feathers of birds. Forget all the research on aquatic zoogeography of North American freshwater fishes; they apparently are entitled to frequent flyer miles. Obviously these people also were totally unaware of the nesting and parenting behavior of sunfish, their young would hardly be candidates for becoming entangled in avian feathers. (A more likely source is the DNR staff itself. Their web site notes that in the Millington Wildlife Management Area " . . . farm ponds . . . are stocked with bass and bluegill for fishermen.") They dismissed removal of woody vegetation because the pond is also used by state endangered barking treefrogs. They clearly are also not familiar with breeding habits of this species, as it sings and mates while floating on the surface in the open portions of ponds and does not need emergent vegetation. In fact it avoids areas of ponds where vegetation abounds. I should note that they only use fish-free ponds. "How do we know the barking treefrogs are here?" Charlie inquired, "are there any specimens or publications?" "No, but someone heard them here once," agency personnel responded.

While all agreed the pond needed to be deepened for the salamanders, it could not be done at this time because of staff concerns that the exotic ricefield bulrush would invade the site. It could " . . . exclude native vegetation that the salamander needed for egg deposition." I can see the female salamanders all armed with field guides to the native and exotic grasses and rushes trying to decide where to best deposit their eggs. Or maybe they would just deposit their egg masses on sticks the way they always have. The exotic plant, of course, is a red herring. There are over 290 species of exotic invasive wetland plants identified as established in Maryland. Yet the state attempts restoration projects in other wetland habitats. Why are they not fretting about *them*?

Official letters responding to Charlie's concerns were demeaning. The first one he sent to the assistant director of DNR was answered with the very questions Dr. Stine proposed. Answers to Charlie's concerns were statements that had no merit. The only other document in writing was a follow-up memo to an on-site meeting Charlie forced on the agency. The summary of the meeting in the memo was simply: yes, we need to do something, but actually we can't because of a number of marginally related issues.

Dr. Stine approached the host of a well-respected Baltimore-based talk radio show to address the problem and to bring it to public attention. As I was the only person other than Charlie to have studied and published information the site prior to its demise, I was asked to participate in the program. Together we exchanged our thoughts with the assistant director of DNR. During the hour-long show I found it hard to stay on track. In addition to call-in concerns of listeners about other endangered species issues the DNR kept switching the focus of the program to other topics and the state's overall new interest in saving ecological communities. It was clear that the agency was defending its turf and all specific questions were answered with factless generalities. Two points emerged in this program. First, it was clear that the agency did not wish to have outside input on their "management" activities (this again surfaced the other week when the same spokesperson said in a newspaper interview that it was not the place of state representatives to tell DNR how to regulate the overfished diamondback terrapin industry). Why they do not like others suggesting to them how to manage or regulate resources was not directly addressed, but it was implied that they are the only ones with the knowledge or data to do so. The second point was that the staff of the DNR had all the expertise they needed to make decisions. "If you get ten scientists in a room together you will have ten different opinions," is close to the exact quote we heard after I suggested an oversight committee for the state's sundry endangered species issues.

At the second meeting Charlie had at the pond (2006) many high level DNR representatives were present. Once Charlie and the Nature Conservancy representative had left, the person overseeing the state's endangered species program offhandedly remarked, "We really don't have the time or personnel to worry about any of this." And everyone went back to their Annapolis offices. While I must admit I was surprised by the lack of interest in this salamander, I shouldn't have been. This is the same agency that after untold millions spent on research and monitoring has been unable to effectively manage and

regulate the Chesapeake's multimillion-dollar crab and oyster industry in the world's largest estuarine system. It was unrealistic to think they would successfully oversee resources without price tags confined to a small man-made pond. Charlie and I guessed right. In early June 2006 he revisited the pond. Nothing had been done, there were no salamanders and the ecological desecration of the pond was at a new low.

What makes tiger salamanders so vulnerable? After the land was transferred to the state a deed of restriction clause stated " . . . that the management of the premises shall be limited to that which is in the best interest of the health and integrity of the rare, threatened, or endangered species or exemplary natural communities or ecosystems that may exist thereon . . . which shall continue . . . with the running premises in perpetuity." The state considered illegal collecting of tiger salamanders, road salts and oils entering the pond, nutrient runoff, and waterfowl hunting in breeding ponds during the salamander's reproductive period all as potential problems. The managers sitting in offices in Annapolis drafting documents did not get it. As early 1976, Dr. John Cooper and I presented a paper on the problems associated with habitat protection for endangered species. John was the chairman of the state's original reptile and amphibian endangered species committee. At a meeting of the Southeastern Biologists we warned that land acquisition and laissez-faire policies alone were not always enough to perpetuate species in jeopardy, especially those listed at state levels where populations may be peripheral. Active management programs may be needed for some species that had specific ecological needs and were now surviving only in relict populations. Maryland's tiger salamanders were listed as a case in point.

Maryland is not alone; most of the other states where eastern tiger salamanders occur also have the species listed as one of concern. Some are down to single populations, but at least they are being looked after. Thus, this is not merely a salamander that is rare because it lives at the limits of its distribution, but one that is having conservation issues throughout most of its range. The species is vulnerable on two fronts: as adults dwelling in woodlands, and as a species having very specific needs for its breeding ponds.

No one with experience with the salamanders monitored the breeding pond and over time the population declined. While the salamanders were protected from imaginary threats such as salamander collectors, the ecological conditions of the pond went unmonitored and once the site was owned and protected by the state it was not really possible for researchers such as Dr. Stine to continue their long-term field studies. There seemed no real need for it—the state was charged with overseeing the land, the species and its management program.

So what went so wrong? It was the nature of ponds themselves. Historically, the species existed in a number of natural bay ponds, and later man-made ponds in the area. As natural pond succession deteriorated the ponds from the perspective of the salamanders (probably a result of our fire suppression policies), the populations reformed and temporarily prospered in new man-made ones. As time went on the choices became fewer, the landscape was fragmented with new forms of land use, and the salamanders became restricted to marginal and inadequate breeding sites. The Massey pond silted in, and woody vegetation shaded the shallow edges of the pond. The decaying leaf litter shifted the pH of the water, and for reasons unclear the pond did not become dry during the late summer. The woodland surrounding the area, the home of the adult salamanders during the nonbreeding period, was logged. The state biologists told the state that their own logging operation, and the aftermath of 12- to 18-inch-deep tire ruts and compacted soils would not be considered as "take" on the endangered forest-dwelling adult salamanders. This is an agency boasting that decisions are always made on the best available science. Well, the scientific literature is full of information on tiger salamanders, their life history, habitat needs, and other information that would be useful for sound stewardship of the species. I looked but found nothing published concerning the cutting down of their woodland homes as a creative measure to enhance their existence.

The net result was predictable, and could have been reversed if anyone in tune to the needs of the salamanders had been watching. Or even if anyone had taken the time to look into the warnings Dr. Stine had been giving to the state for the last five years. The silted-in pond became shallow, the decreased amount of water not only meant that the water temperatures available for the incubating eggs and the growing larva were less stable, but the larvae were no longer able to move between cooler and warmer depths to regulate their body temperatures. A warmer, shallower pond meant that the water could hold less dissolved oxygen, while shading from the encroaching forest resulted in less direct light and lower primary productivity. The accumulating leaf litter made the water more acidic and studies elsewhere in the species' range show that adult breeding males avoid acidic water. The acidic conditions increase embryo mortality, and a low pH influences hatching size and larval growth. The increase in woody vegetation adjacent to the pond shaded the water, further slowing the growth of both the salamander larvae and their prey base. The pond no longer supported the needs of the growing larvae. The death knell, however, was a result of the pond retaining water throughout the year. Several species of dragonflies with two- and three-year aquatic larval stages thrived in the pond and became significant predators of the newly hatched larvae. The sunfish we found in the ponds were at least three or four years of age. Whether they had been directly introduced into the pond or worked their way in during flood conditions is irrelevant. They were bluegills, a species of *Lepomis* not even native to the state that had been widely introduced by state wildlife resource agencies in the previous century. "We had no idea there were fish in the pond," one high-ranking state official told me. So was anyone overseeing this pond on a regular basis? Do we know why or how long these predators were established there? Of course not, no one was allowed in the pond except state biologists. Pick your excuse for not being aware of the fish's presence—neglect, not caring, not understanding the issues. Legal responsibility for an endangered fauna should be accompanied with accountability.

Unscrambling the issues

All of this leaves two compelling questions. First, what can

be done to help the Maryland population of tiger salamanders, if one is even still in existence? Second, is this an isolated issue, or is it only part of a repeating pattern with other listed Maryland species, or by agencies in other states charged with the protection of "nongame" species?

It's hard to even tease myself into believing that anyone cares. People are no longer into nature. The average person is more likely to know the name of Paris Hilton's dog than to understand the most basic concepts of extinction. Our television channels are filled with programs on financial rewards for losing weight, becoming high finance apprentices, or making deals and no deals. And this is the world in which our environmental protective agencies are forced to operate. The guys on the front line are caring dedicated people and their administrators are simply responding to the loud voices of developers, county land planners, and an uneducated public. However, in the case of this salamander, its protection was a done deal, the typical factors which jam up the best intended of conservation efforts were not present. This is neglect. It was a win where we could rally and show everyone how planned cooperative conservation can work. So what do we do? Whining and complaining are not acceptable. Well, at least not as the final product.

This salamander, like many of our endangered plants and animals, has very specific needs. This is the reason that over time they become rare. Our changing land use practices tweak ecological factors, ones that to us may seem unimportant, and shift the odds for a species' long-range survival. In the case of the tiger salamander the proximity of breeding ponds to mature bottom woodlands is key, and over time agriculture and the timber industry, and the filling of wetlands take their toll. Roads bisecting the migration routes of breeding salamanders are a major problem, and as human populations increase so does traffic. Here in Kent County we had an ideal situation, a rural setting and a pond in the proximity of forested wetland that had total protection from development. It's hard to understand that agencies with knowledgeable wetland biologists and forestry personnel on staff could not maintain the system. The issue is not the lack of expertise; it is one of neglect. That was true five years ago, but Dr. Stine continued to bring the issue to the forefront. Somewhere the problem shifted from neglect to arrogance.

The pond itself is the biggest issue. The decreased depth is due to siltation and the berm may have been breached by fish, or perhaps the berm is too high and the water can't escape. Such problems could be fixed easily, as the state has all sorts of major earth-moving equipment. At a meeting held on site on 23 January 2006 of 10 or so high level state's employees, the Nature Conservancy and Dr. Stine it was concluded that the berm had been present for some time and that the pond would not be deepened. The breach is a naturally occurring event and that tiger salamanders "have adapted to the periodic presence of fish followed by fish absence." While this may be true, the situation at this point would suggest a jump-start of whatever remnants of the salamander population still existed was needed. I don't get this "natural" aspect. It's a man-made pond, damn it. Back in 1957 when it was first dug as a borrow pit for road construction the adult salamanders started using the pond within 12–15 months as a breeding site. Scraping it down to ground zero would be a plus. If for some reason that cannot be done, make a new pond. This was one of their original management goals. Damn, the site is 130 acres and the state owns the adjacent lands as well.

Are there still additional breeding sites in Maryland? Back in the '60s and '70s we systematically searched the Delmarva, the few other ones we found were of poor quality, had small and declining populations, and the ponds supported stunted larvae with high parasite loads. Did state biologists with the three- to four-million-dollar a year budget manage to locate additional viable populations? They won't share information, but I would like to think that after five years of badgering DNR about how serious this appears to be, that if they could that by now they would have at least told us not to worry, there are other significant populations elsewhere in the state. Nothing new has been published on the species since the state assumed responsibility for protecting the salamander. The basic premise of science and field research, and that of sharing results of studies, has been ignored. When Dr. Stine asked to see their data on this species, he was told it was privileged information. He tried to press the issue, but the biologists he was speaking to told him he was rude and hung up the phone. I since had the opportunity to see some of the state's "field data." On 26 April 1999 a friend of mine accompanied the state's herpetologists to the one known breeding pond. They were there for less than two hours and no salamanders were found. In the past this was a time of year when thousands of larvae could be seen in the pond and samples could easily be collected for identification with a dip net.

I suspect the state has no new information on the species and the last information made available to the public from the '50s through the '80s by Dr. Stine and myself is all there is. Considering the fact that the species is likely to be extirpated from Maryland this may be the only information there ever will be. Well, maybe some sympathetic soul will write a meaningful obituary. The problem is it takes decades to document that something as secretive as a salamander is really gone for good.

So why is there a problem? One issue is a shortage of staff and unwillingness of the state's professional staff to recognize the knowledge and concerns of the public sector. An unrealistic number of listed species makes it impossible to focus on specific issues. Unwillingness to seek outside expertise, or to take into consideration the well-intended input of knowledgeable people outside of state government is difficult to comprehend.

Okay, this part is good—pay attention. During the course of the last meeting Charlie had with DNR staff at the site it became clear to Dr. Stine that little if anything was actually going to be done. Charlie proposed that he would get some volunteers to at least remove the encroaching woody vegetation. The DNR knothead overseeing all this proceeded to tell Charlie that this would not work because DNR did not have the time to assign someone to supervise the volunteers. This is not a big pond. In fact, if everyone attending this on-site meeting had spent 20–30 minutes with some hand saws, this aspect of

the problem could have been taken care of. I was later told by staff in attendance that people could actually see the veins standing out on Charlie's neck. Yes he was mad, but how could he deal with the frustration?

During the last several decades there has been a decline of amateur interest in native reptiles and amphibians. Various wildlife laws prohibit collection and or trade in many species. The result is that people's interest has shifted from field studies to hobbyists who keep exotic pampered snakes and frogs that they purchase at reptile expos or over the internet. Their interest in native species has waned; they have no contact with species in nature or even knowledge of their natural history. While television nature shows promote the conservation of rain forests and Komodo dragons, or show children how to capture crocodiles with their bare hands, there is little information on local conservation issues. How many people knew there was a species of fish found nowhere else in the world except northeastern Maryland? It was recognized as endangered by the U.S. Fish and Wildlife Service and the state of Maryland, yet it became extinct in the early 1980s. Compare the lack of attention to this species with all the attention given to Tennessee's snail darter in this same time period. Again neglect won out. How can we expect our citizens to become advocates for local issues that they know nothing about?

And then there is nonsense. In a memo that went to the group of people assembled at the Kent County pond, Mr. Therres wrote: "Massey Pond may have served as the major source population for the eastern tiger salamander in the Millington Wildlife Management Area. Its contribution as a source population seems to have diminished in recent years. However, a decline in the Massey Pond breeding population may not necessarily mean there has been a corresponding decline in the metapopulation." Well first, by the mid-'60s this was the only viable population and it was the source population, possibly feeding several of the lesser breeding sites that eventually disappeared. None of the other sites were protected or managed and they died out. The source/sink concept of populations has been used to explain how some woodland birds maintain themselves in unstable habitats, namely they are subsidized by overproduction in viable populations. The Massey pond was the source population, the sink populations failed over time, and now the source population is itself in jeopardy. Therres ends the paragraph with "A more thorough analysis of this is needed." An analysis of what? The pond is no longer suitable for tiger salamander breeding, and the satellite breeding ponds in the area no longer support the species.

I thought that perhaps since they were the ones who originally acquired the site to protect the salamanders that the Nature Conservancy would be concerned. I contacted them and explained the situation, but it has been half a year now and no one in their office has gotten back to me on any of this.

The bigger issue of course is what else is being lost through neglect. I think the answer might be scary—very scary. A few years back I was invited to give a talk on reptiles and amphibian conservation to a sizeable group of people interested in Maryland herpetology. I started it off with a simple straightforward question. "Since 1972 when a number of native reptiles and amphibians were protected by the state, can anyone think of a single species that is better off today than it was in the early 1970s?" Not a single hand went up.

For decades the answer of agencies has been "research." Somehow if we know more about these species they will all be better off. Science is good, and jumping in and helping animals without knowledge is somehow dangerous. While this is a sound premise before willy-nilly distribution of magic prescription drugs to someone with an ear infection, or before liftoff on a manned space flight, it is not necessarily true when it comes to commonsense wildlife management. I would like to think one would assume a forest-dwelling salamander would not benefit from having adjacent woodlots harvested. And likewise there has already been a lot of research on many of the listed species. The needs of the aquatic larval stage of the tiger salamander are documented in numerous published studies. These would lead one to predict a crash of the population in a pond in which changes in depth, water temperature and chemistry, the adjacent upland community, hydroperiod, and the presence of introduced predators all simultaneously occurred. The situation does not need study—it needs fixing. And the fixing should not stop with the pond, it should extend all the way to Annapolis.

It is not reasonable to expect agencies with no outside oversight to self-evaluate the success of their missions. On top of this, other agencies and divisions may have conflicting missions. In the case of the tiger salamander there is a program to plant trees, and thousands of trees were planted adjacent to the breeding pond with no thought as to how this might impact the pond (shading, water temperature, transpiration of soil moisture, increased acidity levels from fallen leaves, or the use or avoidance of a forming woodlot based on tree species). Then there are game enhancement programs, native grass incentives, invasive species control, Department of Transportation needs, snow removal, . . . the list is endless. In many cases the property is better off in private hands where the landowner can just say NO! In fact I have heard that on Long Island the single surviving tiger salamander breeding site known in New York was privately purchased and the site is successfully protected and managed for the salamanders.

Another issue is the fact that now, because of endangered species funding, professional biologists and their students are getting big bucks to research things that many of us did as hobbies in the past. State employees are being paid both salaries and expenses to do what was volunteer field activity less than 30 years ago. Much of the money of course comes from the feds, and federally endangered species receive most of the support, and thereby the attention of researchers. It is hard to inspire the private sector to continue to work on these issues when other people are being paid to do this. And in many cases well intended people can't even help if they want to. Funding aside, the protected sites and species are off limits; the protection excludes volunteer assistance. As Charlie and I discovered, permits can be difficult to obtain, and the agency remains unresponsive to the small, and slowly decreasing, segment of caring/concerned public. To some the answer would be to sue the state and force them to do the right thing.

The problem with this approach is that funds to pay for the lost court action would come from money earmarked to help the state's endangered species while the "environmental" lawyers winning the legal action would have funds to build even bigger trophy homes on some key wildlife habitat.

Solutions

The answers: education of local landowners, media exposure, and education in local school systems about backyard environmental issues. This is where conservation minded people become locally successful; it is much harder for us to have a meaningful impact on the destruction of rain forests in developing nations with high poverty levels. Someone needs to hold DNR responsible. They need to carry out their original management plan. Because the survival of this salamander in Maryland is tenuous at best, the state needs to step forward, recognize the problems that have developed because of a decade or more of neglect, and place the situation into intensive care. And then there are letters, emails and phone calls to appropriate political representatives. I hate to say this but these will be needed to change the direction of current policy. A likely solution for this specific issue is so simple. Make another pond modeled after the one scooped out in the '50s. The salamanders found that one and prospered in it for over three decades. Every two or three decades repeat the process. Be prepared for an agency's glossing over, stonewalling response, and learn to read what they are actually saying. OK, the continued tiger salamander presence in Maryland is not something that is a pivotal issue, but where do we draw the line? People have recognized that nongame, noncommercial species are important. Do not the woods seem a little wilder, does not the world seem a little less monotonous knowing that tiger salamanders are still with us—hiding under logs and migrating to breeding sites on rainy winter nights? Our predecessors made clear that bison, elk, wolves, panthers, Atlantic grey whales, Maryland darters (and 30 other species of vertebrates) were not to ever again be part of Maryland's indigenous fauna. We have to live with that, but have not new ethical standards evolved? What will future residents of Maryland think of us, or our elective representatives and the commitment of our regulatory agencies as our native fauna continues to disappear? Perhaps more to the point, is what will we think of ourselves?

Since the pond no longer supports the needs of the growing larvae, some obvious questions come to mind: Is it premature to have a memorial service for Maryland's tiger salamanders at their last known breeding site? Would such a service require a permit? Perhaps a memorial service for the state's endangered species program is more to the point. And how is it that pioneer naturalists like Dr. Charles Stine, well-intended, knowledgeable people willing to donate their time and expertise to state agencies charged with the responsibility to protect our natural heritage, are not appreciated as an invaluable resource?

And now a news flash [I literally became aware of this the day before I planned to submit this note for publication]: There is now a proposed State Wildlife Grants Project for tiger salamander habitat management at the Massey pond. The proposal is for fiscal year '07 so at best the pond will not be suitable for the salamanders until the '08 breeding season. Furthermore, the project is ranked 15th in priority so it most likely will actually never be funded. Tiger salamander management ranks below projects such as "data base management," "environmental review," "natural community classification," and "statewide assessment of dragonflies and damselflies." In fact, of the 44 wildlife grants proposed for the coming grant cycle only five are actually for helping species at risk or for improving habitats. (The remainder are for monitoring and data analysis.) The proposal addresses removal of the adjacent woody vegetation, creating visual barriers of vegetation so the pond cannot be seen from the road, and chemical removal of one species of invasive plant. (The way I read the visual barrier idea, two-thirds of the previously open edges of the pond will continue to shade the pond and provide a constant source of additional organic material. I am not sure why they want to conceal the location of the pond, for on their web site DNR lists eastern tiger salamanders as "things to see.") A water control device will also be installed. Other issues, such as siltation of the pond, pH, and pond depth are not mentioned. Of the $18,000 budget, $12,000 is for contracted labor for woody plant removal. That's right, this is the same labor Charlie volunteered for free nearly a year before. I asked a former student to calculate the actual cost for a commercial firm to scrape out the silt from the pond and to remove the vegetation in question and the total was less than $12,000. As for the rest of the budget; $3,000 is for DNR salary and overhead (I would assume the salary is for already existing positions), and $3,000 is for materials and supplies (saws and matches?). I suspect that the proposal is simply a back door for the agency; the wildlife people can now honestly say they prepared a management plan, but unfortunately it was never funded. It is informative that despite his interest and concerns that Charlie was not asked to review the plan; in fact he was not even aware of it. Stay tuned, and let's hope adult tiger salamanders are longer lived than what is currently believed, and hopefully longer lived than Annapolis-based foolishness. In the meantime DNR will continue to bask in their statement that "all their decisions are based on the best available science."

It is horrifying that we have to fight our own government to save our environment. - Ansel Adams

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Moving Hobart's Library
"Trick or Treat"

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It all started almost two months ago, September 4, when I got an email from Hobart Smith asking, "What are the time constraints relative to coming after my library?" Many years ago Hobart made up his mind about this and since then we have talked it over every now and then. Anyhow, I started in on the paperwork needed to safely move the library to MZFC[1].

For days Hobart and I exchanged emails about the details, official letters and requests, and even about Hobart's discomfort with the red tape (his term) associated with the paperwork. After all of these things we set October 18-26 for my visit to pack the library and have the chance to spend some time with Hobart, Dave Chiszar, and Hobart's son Bruce and his family in Boulder, Colorado.

I was eager to see Hobart once again. And I was very concerned that his health might be deteriorating, and that might be the reason he had decided I should come to Colorado and pack the stuff in his office. My wife Miriam, my student Leticia and I arrived safely at Denver airport, rented a car and drove to the Atrium where Hobart lives. We got there just in time for supper. How nice seeing Hobart again—in good health and overall in a very good spirits.

That same night we started packing and by Sunday night, after Miriam had left for Mexico, Leticia and I had 98% of the job done. We had spent quality time with Hobart, and Leticia was even able to convince Hobart to participate on Tuesday, October 31, in the visit of preschool children for "trick or treat" at the Atrium (after a trip to the grocery to buy a bunch of strange candy).

On Monday, October 23, I sent the last piece of information UNAM[2] had asked for in order to hire a company to move all the stuff from CU (Colorado University) to CU (Ciudad Universitaria), Mexico. Monday, Tuesday and the first part of Wednesday were lazy in terms of packing. But I started to get nervous that the office of donations at UNAM had not sent the information on the moving company. At 3 P.M. Wednesday, Leticia and I decided to change our plane tickets to Friday, the 27th, and extend the car rental for 24 hours longer at Hertz. After 3:30 we decided to quit waiting for the call of Lic. Iniestra in UNAM and, tired of dialing her office with no answer, we went to search for an Indian restaurant, finally landing in a Chinese-Vietnamese place.

After dinner we went back to CU to find out that Logistics Solutions was going to be in charge of moving the library to Mexico the next day (Thursday, October 26, at noon).

Thursday came, the whole morning no problem except for a snowstorm (a light one) and an email from Erick Muñiz of Logistics Solutions warning us that the moving truck might be delayed due to the storm. Nothing bad.

We changed our tickets and accepted the $100 charge for that after a brief talk with two different ladies from American Airlines. They finally authorized my credit card with billing address in Mexico, though they wanted a card that billed in the U.S. I had begun to wonder if only people living in the U.S. can change a plane ticket these days.

Around noon, I get my coat and take a walk to check if the moving truck has arrived. I see a truck parked by the psychology building with "Old Dominion" stenciled on the trailer. Since I had been told yesterday that SEKO Worldwide was in charge of moving the stuff, I pay little attention to that truck. Still no sign from the movers at 12:15. Oh well, a small delay caused by the storm. At 12:32 the phone rings; the truck driver is in front of an Episcopal church looking for the Ramaley building. I talk to the priest and give him directions on how to get to Ramaley C-185, Hobart's office. Five minutes later the driver arrives at C-185 Ramaley. He asks me, "OK, where do you want me to park the truck so you can load it?" My first reaction is: "What, you are supposed to load the truck, not us." He tells me "No, I was only hired to transport the load. I'm alone and no one else is coming with me. I do not have a loading crew. You are not loading the truck and I will leave."

Then I say, "Wait a second, let me call the people that hired you." I call UNAM in Mexico City and Lic. Iniestra locates on the other line Erick Muñiz who tells her to tell me that there is another company that will send a crew to load the truck. I conclude that company must be SEKO Worldwide, and tell the truck driver about this other company that is coming to load the truck.

The Old Dominion truck driver (whose name I found out later was Tomas) tells me, "OK, these guys are a different transport company. I have seen their trucks. So this means I have nothing to do here." I tell him, "Wait a minute, let's see if these guys are only going to load the truck." The driver insists, "No, I'm leaving. They will do this job." I am asking him again to wait when the phone rings. It is a lady in the architecture department; there are some guys looking for the biology building to load a truck. I give them directions over the phone, and the truck driver asks again where to park the trailer so he can leave it while those guys load it.

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1. Museo de Zoologí a, Facultad de Ciencias.
2. Universidad Nacional Autonoma de México.

I walk out of the building with him and indicate to him that he can use the loading ramp at one corner of the Ramaley building. He walks toward his truck to move it. At the same time I run back to room C-185 to check for the loading crew. Immediately a guy 35–40 years old—not so nice looking—asks for Dr. Villela. I identify myself and show him all the stuff he and his crew have to move to the truck that will be parked on the loading ramp outside the building. The guy looks at me and tells me, "I really can't stay. I forgot I have legal matters and need to go right now to see an attorney. I forgot about it." Two more persons show up, a woman (Catherine) and a guy (Frank) and she tells me they will be able to get the job done (Catherine was wearing a cast on her left hand). I look at her cast and she says, "I had a broken arm but I'm recuperated; this is just a cast for support, I can do this job. It's just the kid outside in the truck who doesn't want to cooperate, and has a bad attitude."

Then I instruct them about the stuff they have to move to the trailer. Immediately they tell me, "We have no tools to carry the stuff—no dolly or cart. Fortunately, I have access to a dolly and a cart, and give them to the movers.

We decide to move the book boxes first. First trip to the trailer, the kid is inside the trailer ready to receive the boxes. Catherine asks him to jump down and carry the boxes into the trailer. The kid stars yelling at her and insulting her, "You're not my boss, don't talk to me like that, and so on. . . . Catherine runs back to the building, goes into Hobart's office, grabs the phone and telephones the company, Labor Ready, that hired them. She speaks to the supervisor and lets her know about the kid's attitude, then passes the phone to me and I tell her about the problem with the kid and that she has to send more help. She answers back, "I do not have more help at the moment." I am about to tell her about Catherine's arm, but Catherine signals that it will be OK, she can do the job. I pass the phone back to her to finish talking to the supervisor.

A few minutes later the kid comes into the room where Leticia is labeling boxes and asks her to use the phone. She tells him, "This is not my office." The kid walks out, and minutes latter I find him in Hobart's office talking on the phone to the supervisor at Labor Ready. After a few seconds the kid hangs up, walks out of the office and walks back to the trailer. I lock Hobart's office to prevent the kid from walking in again without my authorization.

Minutes latter, I find Catherine and Frank in someone else's office talking again to the supervisor at Labor Ready. I ask them to hang up the phone and call from Hobart's office. They finally tell me the supervisor from Labor Ready is coming to ask the kid to leave, and to bring more help.

Twenty minutes later the kid is gone and a woman (Merry) with a look of the '80s with a wig and a guy who looks like a university professor (John) come to help. They start moving boxes and card drawers. Everything goes smoothly for the next 20 minutes. I do not go out to check the trailer until Merry comes walking in, telling me the parking police are out there and want to fine the trailer and tow it away since it's parked in a disability parking spot.

I grab my coat and run out to check what's going on. I try to explain the situation to the parking guy and tell him the driver is gone. I also explain that it is not my fault, that I told the driver to park on the loading ramp. He gives me 20 minutes to move the truck before he issues a citation and tows it away.

I run back to Hobart's office to phone Old Dominion and let them know about the parking problem, then run to talk to Linda Bowden in the biology department office and tell her about the same problem. She assures me that she will try to talk to the campus parking police. She grabs the phone and calls their office. After talking to two different people, she tells one of them that we are moving "the library of an Professor Emeritus that he has decided to donate to Mexico, and Dr. Flores from Mexico is here to supervise the loading of the truck. He is Mexican and does not know about campus parking regulations." After a few moments she hangs up and tells me, "They will see what they can do, but the truck will have to be moved from the handicapped spot."

I cross my fingers and hope they are not back with a tow truck in 20 minutes, and that the guys from Labor Ready will have the chance to finish loading the trailer. It is 1:30 P.M. Things go right for the next hour and a half. Apparently the parking guy got a call from his office and Linda's story worked out. The truck driver has not shown up either.

They have finished loading the book boxes, and the university-professor-looking guy found another cart at the central door of Ramaley and has finished the loading of the card drawers. They start loading the file cabinets at 3:05 P.M. I have been asking about the parking police. Nothing, until the professor-looking guy comes and tell me they're going to tow the trailer. I run out to talk with Linda in the department office. She calms me down and tells me that in the worst case scenario they will take care of the citation, and that she will call them again to ask them not to tow the trailer. I run back to where the trailer is parked. The parking guy just issues the ticket and a tow truck has stopped nearby. The driver wants to tow away the trailer. He assures me he does not want to tow the trailer but more than an hour and a half has passed and he does not see the driver and the truck to move the trailer. He talks to his boss and they decide to give me until 3:45 to move the trailer; otherwise it will be taken to the CU towing yard.

I run back to the office and again call Old Dominion to ask them what is happening with the driver. The guy in dispatch tells me that two minutes ago he got hold of the driver, who is on his way to move the trailer. I also tell him they already have a citation for 150 bucks.

I tell Catherine to rush, that they have to finish loading the trailer before 3:45 P.M., and she assures me they will do it. I start walking towards the building and she asks me, "Hey, doc, who is going to buy our pizza," and I tell her "You'll get 20 bucks for pizza and beer if you finish before the tow truck comes back." She jumps and tells me they will be done by then.

The file cabinets are heavy, so they take them one at a time. That is, one on the big cart and one on the dolly. By 3:35 they

are two-thirds done and start on the map cabinet. I walk out to check how they are loading the cabinets. I cannot imagine the two ladies lifting them into the trailer. The scene I find is hilarious: Catherine somehow has managed to talk the students that walk by into helping her to lift the cabinets and push them inside the trailer. I realize this is the reason why the two men have been able to keep busy moving the cabinets from Hobart's office out to the trailer.

This is Catherine: "Hey guys, do you exercise, go to the gym? Would you help me lift this cabinet?" She has managed very well. I do not want to be involved in this and walk back to Hobart's office. It's 3:45 and Frank tells me, "The tow truck is taking the trailer. You better go out and see if you can stop them."

I run outside and see the tow truck backing up to tow the trailer. That same moment the truck driver, Tomas, shows up and starts talking to the parking guy. The workers are coming with the last file cabinet and the map cabinet. Someone lifts them into the trailer and they have finished the job.

Tomas finishes talking to the parking officer and starts arguing with me, demanding I pay the ticket. We argue for about five to 10 minutes and he decides to move the truck but leaves no papers for me to sign. I start worrying that he got pissed off with me and decided to leave with the loaded trailer.

I finish signing papers for Catherine and her crew, and give her the promised 20 bucks. They leave happy and plan to meet someplace later to eat.

I run into the office to call Old Dominion and tell them about the driver. The guy in dispatch laughs at me and hangs up. I'm about to explode when the truck driver shows up at the door still arguing I should take care of the ticket. We discuss this for another five minutes and I refuse to pay the citation. I explain to him that he should have parked where I told him and not in the handicapped spot.

Finally, he asks me to show him the rest room. He takes 15 minutes, while I phone Mexico and let them know about all the problems I had with Old Dominion and Labor Ready. Lic. Iniestra is out to lunch but her assistant assures me they will take care of the problem from now on.

The truck driver is back at Hobart's office with a new attitude. He apologizes for the misunderstanding about the parking and the ticket, hands me the paperwork to fill in and sign, and then leaves. By my watch it is 4:40 P.M. I tell Leticia to stop what she's doing and we go out to have supper with Hobart at the Atrium. I feel more calm and happy—everything seems to be over.

Hobart is waiting for us at the dining room in the Atrium; after all he has agreed to spend some time with the preschool children on October 31 for a Trick or Treat visit.

27 October 2006 on the plane back from Denver to Mexico City.

We are now looking into the possibility of making Hobart Smith's library available to everyone by putting old papers and relevant books in a PDF format and uploading them to a web site. We encourage everyone to send copies of their papers relevant to Mexican herpetofauna, either in print or PDF format, to Oscar Flores-Villela, Museo de Zoologia, Fac. de Ciencias, UNAM. A.P. 70-399 México D.F. 04510 or by email to ofv@hp.fciencias.unam.mx

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What You Missed at the 2006 IHS in San Antonio

by John Archer
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I wasn't sure that I wanted to go. Frankly, sitting in a meeting room all day listening to speaker after speaker talk about even herp related topics didn't automatically engage my interest. I like to be in the field. I'll stand all day talking to people about herps at shows. But I'm not an academic and I get plenty of chair time on my job. Plus, the money, the time, and the four days away from my extremely tolerant but non-herp loving spouse made it seem easier just to say that the 2006 International Herpetological Symposium in San Antonio just wasn't worth attending. Besides, San Antonio in June?

Then Alan Kardon spoke at one of our CHS meetings. I liked Alan's presentation and I liked Alan, especially after talking with him at our après-meeting dinner. Alan is curator of reptiles, amphibians, and fishes at the San Antonio Zoo, and the zoo was hosting the I.H.S. San Antonio is an old stomping ground of mine and one of my favorite cities. Mike Dloogatch was going and was willing to share a room. And a figure from my past was going to be a speaker, someone I hadn't seen in over forty years, but who played a major role in developing my interest in herps.

So I went. Taking a step outside the air terminal was an instant reminder that it was June in San Antonio. There's nothing like trading the heat and humidity of Chicago in June for the heat and humidity of San Antonio. Not leaving the hotel for the entire three days seemed an increasingly appealing option. Registration was simple, even as a walk-up, but it did mean that I had to forgo a preprinted name tag. The hospitality room was crowded, and I knew absolutely nobody, but Mike seemed to know and be known by nearly everyone, so I was soon meeting people. If you've been to these things, you know the kinds: zoo people, academics, breeders, importers, suppliers and other famous and interesting people. And me. The nice thing about being the most ignorant person in that sort of crowd is that I had no where to go but up.

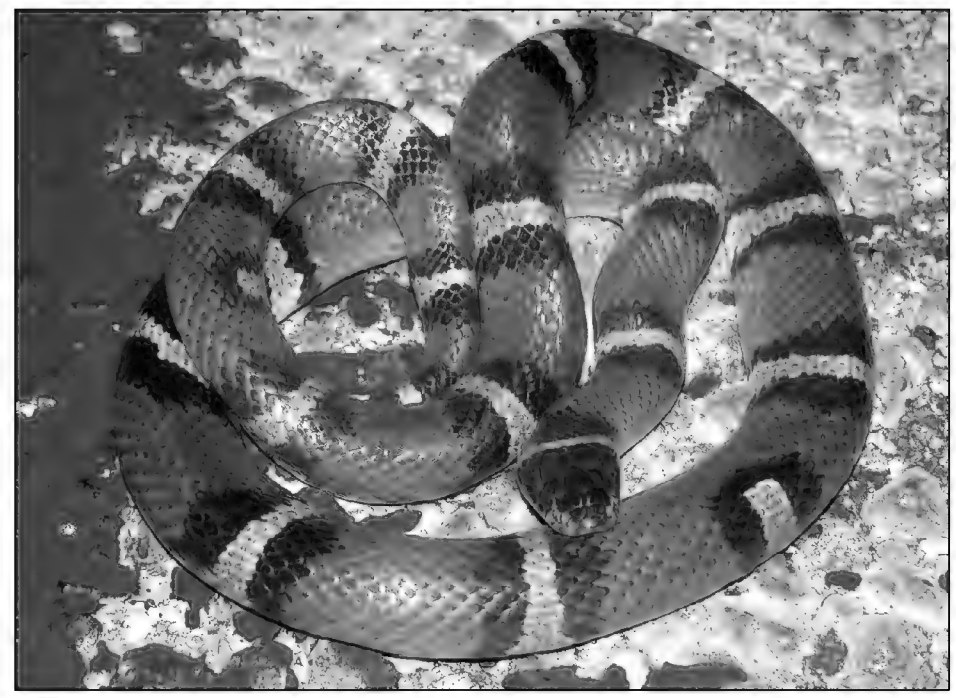
I'm not going to attempt a summary of the presentations, but they had titles such as "Galapagos Tortoises" (she brought babies with her!), "Gharial Exhibit at the San Diego Zoo and the Status of the Wild Population," "Milk Snakes to Vipers—Thirty Years at the San Antonio Zoo," "Maintaining a Self-sustaining Colony of Endemic Mexican Montane Rattlesnakes," "Kemp's Ridley Sea Turtle: Past, Present and Future," "I Married a Herpetologist" (proving that Alan's wife is as good a speaker as he is), and "The Evolution of Venom Production: Past, Present and Future" which was by Jim Harrison of the Kentucky Reptile Zoo who thoroughly convinced me that I never wanted to go into venom production. Over two dozen speakers on subjects that certainly stirred my curiosity, and I wound up staying for them all. The talks were great, but I think just hanging out with that type of crowd raised my I.Q. several points.

The highlight came the evening we visited the San Antonio Zoo. Not only is Alan Kardon a gracious host, but so are his family and his associates at the zoo. They provided a free dinner and a really intriguing behind-the-scenes tour of the zoo after it had closed to the public. The zoo staff is justifiably and obviously proud of their animals and habitats. They tolerated nearly endless questions, crowded back rooms, and continuous requests to "get a closer look at. . . ." In spite of the late hour and, I'm certain, extra long day for all of them, I don't think any of us went away disappointed. I know I didn't. The reptile house had amazing animals and beautiful exhibits. And the sight of a huge false gharial (*Tomistoma schlegelii*) gliding towards us as Alan called to it was sublime. But the best for me were the Japanese giant salamanders (*Andrias japonicus*), huge salamanders that, had I been braver (or dumber, as one of the keepers put it), I could have simply reached down and touched. We stayed late, but eventually we had to board the bus back to the hotel. I could have easily spent much more time. If you get to San Antonio, this zoo is a must visit.

Sunday we visited with David and Tracy Barker. If you don't know who these two fine people are, check out their web site at www.VPI.com. Once again I was riding on Mike's coattails, but I had a fun visit and their two young sons made the visit all the more enjoyable. Sunday afternoon we headed south of San Antonio to do some road running in areas that Matthew Hodges of The Bug Co. had suggested to us. The daytime road running gave us some neat birds, including a rather bizarre sight of dozens of vultures using a cell tower as a roost. We found lots of checkered garter snakes (*Thamnophis marcianus*), and via cell phone we heard that others in the area had found an indigo (*Drymarchon corais*). While I was excited, Mike was on a mission. He had seen indigos down here before, and apparently western diamondbacks (*Crotalus atrox*) were common as grasshoppers, but we didn't find any, and that didn't bother him. What he was hoping for was to see a live Mexican milksnake (*Lampropeltis triangulum annulata*) in the wild. The roads weren't exactly unknown to herpers, because as dusk fell we found ourselves competing with huge pickup trucks outfitted with enough lights to illuminate a Bears' game. Even though they were running the same roads as we were, we still found snakes on the road, but just as we decided that this would be the last run, there on the road that had been heavily traveled all night lay a gorgeous Mexican milk. We took our pic-

tures and then moved it off the road. It was a happy drive back to the hotel.

The next day was the flight out, and even that turned out to have an IHS connection. As I was waiting for my flight, I noticed Jon Coote waiting for the same plane. John is the Director of R&D for T. Rex Products and currently serves as Chair for the British Herpetological Society. I had been briefly introduced to him at the meeting, so I thought that I'd chat with him while we waited. Upon reintroducing myself, imagine my surprise when he immediately offered to use his frequent flyer miles to upgrade me to first class. I think that ending epitomized the spirit of the entire symposium. Everyone was gracious and the events were fun. And yeah, I did get to meet my mentor of forty years ago, and while he didn't remember me, he took time from his busy schedule to fill me in on his life since I knew him. I don't know that symposiums get any better. Cool animals and cool people are why I belong to the Chicago Herpetological Society.



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HerPET-POURRI
by Ellin Beltz

The Opossum That Ate My Column and Other Tales from the Wild, Wild West

Regular readers remember that we moved from the Chicago area in June of 2001 to far northwestern California—the land of the redwoods—six hours north of San Francisco (if you can do it at all in winter) and only a couple of hours south of Grant's Pass and Gold Beach, Oregon. It's three to five hours to Interstate 5, depending on if it's raining, fogging, snowing or briefly sunny. The scenery is gorgeous, from coastal bays full of every kind of raptor through the Coast Ranges and into the narrow northern end of the Central Valley.

As the sun angle drops towards the southern horizon, the first ridge of the Wildcat Hills about a quarter-mile south seem to grow taller. As midwinter approaches, the shadow of the 600- to 800-foot-tall range slices closer and closer to our yard, never quite reaching us, but leaving a few houses in complete shadow from November to February.

The wildcats the hills are named for are very real. My husband did not believe me that there was an extremely large yellow cat outside by the garbage can, or that whatever was leaving the giant cat tracks in the sand-pile was far too large to be a house cat. He stopped doubting when he saw the real, live bobcat by the back fence. We haven't seen the real big guys yet, although mountain lions have been taken out of people's back yards within a dozen miles of here and their home ranges are much, much larger than that.

Then Ken saw a bear in the town's public park on the northern edge of the Wildcats, near where the ensatinas live and just up the street from the ditch full of yellow-legged frogs. Dawn and dusk, rose-eating, vegetable mangling, overpopulated black-tailed deer are so ubiquitous that I saw one bounding down the double yellow line in the middle of Main Street the other day. Fortunately, and unlike last year, the deer did not leap through a store window!

As the days get shorter, it's easier to see the black-crowned night herons flying overhead at dusk. These strange birds sleep all day, looking for all the world like stuffed seagulls roosting together in one lonely tree. As soon as it begins to get dark, they all take off and feed all night, returning to the tree at dawn to remain—immobile—until the next sunset. One of the local waiters teases tourists; he tells them, "They're just statues."

Herpetologically, we have garter snakes (*Thamnophis sirtalis*) in our front yard and under the porch, a western fence lizard (*Sceloporus occidentalis*) under the hedge, a newt in the greenhouse and a baby newt in the back yard (both *Taricha granulosa*), numerous California slender salamanders (*Batrachoseps attenuatus*) under boards and debris (yes, snake boards in my own back yard—heaven!). Several times, I've heard a single northern red-legged frog (*Rana aurora*) just outside our kitchen windows. They're not endangered like their southerly cousins, but it sure is a thrill to hear them snore quietly "Raaa-naaaaa." You can see why the Romans named the edible frog "*Rana esculenta*" after hearing their western cousins advertise for mates.

Rare and unusual tailed frogs (*Ascaphus truei*) occur in fast-flowing headwaters streams all along the Coast Ranges from the wilds to the south up through Oregon. A biologist from a local timber company brought an amplexing pair to a conference last winter at Humboldt State University. The male's "tail" was engaged in the female and they kicked around some in their little container. I imagined they wished they were away in their fast-flowing stream, ready to stick a single plump egg to a rock with tailed frog glue. Their tadpoles stick down to the rocks and feast on diatoms until transforming to mom and pop tailed frogs a year later. That's the unique, specialized frog that everyone would love to see, although most people are unwilling to do the long, cold hike.

Then there's the frog that everyone sees and takes quite for granted. Pacific treefrogs (*Pseudacris regilla*) are everywhere, their "ribbet-ribbet" cry tuning up now as the annual rains begin dropping buckets of moisture on the barely moist sand and clay soils, ground fine by the inexorable northward trend of the triple junction at the top of the San Andreas Fault.

Besides the pair of treefrogs that has staked out territory under the hot tub lid, one particularly brave little *regilla* decided to live under the message slate on the porch. One day, one of the garden club ladies came by and nearly had a heart attack when he put his head up and issued a lusty "ribbet!" at the exact moment she thought she'd rung our completely out of service doorbell.

Treefrogs have popped out at me from the most unlikely places including under the garbage can lid. One stuck himself to my glasses and then realized that's not a window and hopped off. Some young ones have trouble with colors. I have a fabulous series of treefrog pictures: a bright neon green frog sitting in a pale pink rose; a bright emerald green frog sitting in a white PVC drainpipe; a bright emerald green frog sitting on a red brick, and so on. I wonder how they see their world; or perhaps more important from the frogs' perspective, how their predators do!

The bats and the bees

Every Halloween or thereabouts, we had a bat or two loose in the house. We assumed they were coming from an upstairs closet quickly nicknamed "The Bat Cave" and made a point of keeping the door to the cave firmly shut. Unfortunately for scientists who collect no data and misuse their resulting assumptions, the occasional bat was not coming from the bat cave; rather a giant colony of bats was roosting in the main house attic! The guano pile had to be removed twice before we figured out they were doing the limbo up a metal flashing to the redwood ridge-beam and fanning out from there.

So we waited for a dark and slightly stormy night in the late fall of 2005 when all the young were fully grown and flighted.

Tired of plastic sheets across the attic floor and the weekly guano brigade, we bought a big can of that super yellow foamy stuff that expands and hardens with botryoidal blobs pendulous from unknown cracks. At 1800, we began our attack after hearing the bats limbo down and out the flashing. Ken filled the whole line along the ridge poles from the outer point to the inner point, hoping to flush any remaining bats down and out the flashing. But there were none, they'd all gone outside to feed. We were slowing down to do a good job when a few drops of rain warned us they might return at any moment; and they did, diving in the hole in the flashing and pausing for a moment at the bottom of the flashing. "Barbarians," squeaked the bats as they found the upper part of the flashing completely blocked and the foam slowly oozing down towards their only entry.

After much squeaking and quarreling most of them left, but one determined bat scratched and squeaked all night and kept one tiny cavity open. You can hear them in the flashing in the daytime, just a few bats squeaking and sniping with each other. As the flashing only leads outward, we're hoping the guano rolls away. There certainly is none in the attic and as long as it stays that way, my bat "problem" is solved.

One day in late July a swarm of bees attached itself to the side of our roof and found some tiny entrance into the walls. They started flying out all the heating vents, out the pocket doors, out of the bathroom cupboards! Even though they were docile and easy to net and toss outside, it was just too much. As bees flew around my head, emerging from the pocket doors at about one per second, I grabbed the yellow pages and started dialing for help. After a couple of dozen calls to various bemused local people, two beekeepers consented to come down the next day and catch the swarm. Well they should have come the day of the arrival for as soon as the swarm saw the guys getting into their white suits and net headdresses, every single bee took off almost in unison, waved "arrivederci suckers" in bee language and vanished off to the north. I don't know how the bees still on the first floor knew the swarm left, but they instantly lost all sense of purpose. Disappointed and abandoned by their queen they just curled up and died. Ten gallons of bees joined forty-five gallons of bat guano on the compost pile.

Slugs and snails and spider web tales

We're all aware that reptiles and amphibians are being translocated worldwide. However, plants have been being moved around far longer and they carry animal hitchhikers. The plants can become nuisances, although native California quail find the brambles of the introduced Himalayan blackberry (thank you Luther Burbank) a great place to hide from Asiatic pet cats and other small mammals.

Other well-meaning but shortsighted individuals deliberately or accidentally introduced various invertebrates including night-crawler worms, escargot snails and what my yardman calls "Catholic slugs" as the orange-frilled nightmares moved outwards concentrically from some plantings at the Assumption Church.

When we arrived the yard was overrun in spiders, slugs and snails and the local pundits said, "You'll never get rid of them all without poison." I don't do poison, so I hoped that the reports of garter snakes under the sidewalk were true and that if I made some snake habitat, they'd move in eventually. Better than that, we discovered that one whole side of the front yard is imbricated river stones, garter snake paradise along with the hollows under the 1903 city sidewalks and water junction box. We added a snake-a-torium; an rounded garbage can lid which adds a lot of heat below it on sunny days and is frequented by long, plump pregnant garter snakes all summer long. We've heard that adult garter snakes feast on pocket gopher babies; what the juveniles ate was unknown.

As the garter snakes multiplied, the slugs slowly disappeared, but the snails multiplied and took the slugs' place. In essence there were the same number of gastropods as before but they were all escargot!

In 2005, I used to go out and hand collect a five-gallon bucket of slimy snails from under the top rail of the picket fence. In 2006, I couldn't find enough snails to fill the bucket. What happened? As far as I can tell, the local opossums learned to eat escargot. Problem solved. Now it's hard to find a snail or a slug in the yard.

Ferndale is the world capital of persistent and persnickety spiders; they'll pitch a web across anything—literally overnight. You could hear tiny spider laughs when I got out the hose to clean the outside of the house. But they're not laughing now. We bought a power washer and the war began. Now they run for the roof; it's the only place they're safe. We have days here that spiders would ban if spiders ran the world. I've gotten spiders out of drawers, closets, under floors, in cabinets, in the garage, under flower pots, in my car, behind the rearview mirror and stuck to the roof racks of the jeep. The attic (what wasn't covered in bat-do) was decorated with pendulous web-blankets of a century of spider-work. Several dozen shop-vacs of spider webs and centrifuged spider parts, meals and egg sacs were added to the compost heap. Not all were dead, for the compost was quickly covered in webs.

But spiders do learn. They've learned to stay outside the house and in deep, dark corners where they can't be rousted out by a vacuum or power-washer. And I've learned to walk through the garden with one hand in front of my face after one too many encounters with eye-level spider silk.

I'm glad that frogs eat spiders. I've watched Pacific tree-frogs chow down on spiders that had made themselves fat and happy behind objects stuck to the walls. I wouldn't be surprised if the frogs did in the spiders' larders, too as the prey items are always also missing when the frogs take over a spider's lair.

Just to even it up, I've even seen a very large spider eat a very small newly metamorphosed froglet. There was no way to stop it, nor any way to stop the lightning-fast strike of the striped garter snake as it snatched a frog that jumped instead of froze as I walked through the yard.

Domestic non-bliss and the titular opossum

The food chain continues upwards; the ever-present feral and loose house cats take small birds, garter snakes and the occasional frog for sport. Perhaps it is good that the cats are

out; it keeps the little creatures wary and moving fast.

So, our house is a very, very, very fine house, with two cats in the yard, a frog under the entry-slate, two more in the hot tub, a few million spiders hiding and the usual complement of North American small mammals.

Our first small mammal was the house mouse. After being assured by our real-estate salesperson that "There are no mice in Ferndale," we replaced several yards of insulation, electric wire, tapped aluminum foil into forgotten holes in the kitchen and the garage and still the little beasts found ways inside. But these are not Chicago street-wise mice, with tiny Mohawks, pierced tongues and colors. These are generation 1,350 happy California mice, descendants of happy mice from Hawai'i, the Azores and San Francisco. We didn't even have to use the mousetraps we bought. Eventually, the plugged holes and glue boards sent the message and convinced them to go live somewhere else.

The next small mammal wasn't so small, was a lot scarier and is the reason this column isn't clippings this month. Last week, before my husband came home from a business trip, there was a strange and weird sound coming from the tiny cupboard under the front stairs. There was a gnashing, then a rolling as if a stone was being pushed across the floor, then a crunching and then more gnashing, more rolling, more crunching.

Believe you me, home alone is not the time to open the door to the tiny cupboard under the stairs. I've seen one too many movies which starts or ends right there and I just wasn't going there. So I did what any red-blooded, risk-taking American herpetologist would have done. I stopped opening envelopes and reading clippings and went to bed, pulled the covers over my head and pretended not to hear the noise until I went to sleep. In the morning, it was all quiet. So I opened the cabinet door. Quick as a flash, an opossum that had been sitting there vanished down a rather large hole next to a heating duct!

The floor was littered with escargot snails, which explained the gnashing and rolling and crunching. I found out it is possible for a full-grown human to fit in the cabinet under the stairs, just barely and don't move your head, or else. I patched the floor around the heating duct, put my screwgun away and patted myself on the back for a job well done and started in on some computer work, read the clippings and ran out of steam for that day and went to bed.

About two A.M., I heard the most god-awful noise coming from the kitchen. So I crept downstairs in the dark, missing the creaky stairs and flipped on every light at the same time only to find an opossum sitting in the middle of my kitchen floor. I was really, really annoyed by this for some reason and screamed "AAARGH" at the 'possum which launched itself up and over and "died" right on the spot.

Remember, please, it is two A.M. and I'm alone. My husband is the small mammal expert—I do frogs. So confronted with this undead beast, this zombie 'possum, I decided to do the 1950s housewife thing and so I picked it up with the barbecue tongs, carried it to the front door, opened the front door and flung it outwards, hoping it woke up before it hit the ground.

It hasn't been back. It is probably telling its grandpossums about the alien from outer space that appeared from nowhere, shined a powerful light in its face and then did horrible things to its body. When it awoke, says grandpa 'possum, it was alone, dazed and stuck in a bush in the yard a long way from the house!

Regardless of bruised 'possum ego, confusion or inconvenience, the large pile of snail shells and 'possum scats under the stairs meant my next two days were spent finding each and every 'possum sized crack in an antique house. The front hall cabinet is still scattered around three rooms. We have to replace a large chunk of floor to keep Grandpa and the next three generations of escargot eaters out of the house. I guess unexpected excitement is just one of the joys of old-house ownership!

Next month, I promise, it'll be back to that fright-scattered pile of clippings now gathered up, tapped into a pile and awaiting their extra 15 minutes. For now, let me thank Marybeth Trilling, William Burnett, Raymond Novotny, Ms. G. E. Chow, Wes von Papineäu, Peggy Perrazo, Eloise Mason and the complete host of other folks who have contributed herpetologically related articles to this column since its inception in 1986. You can contribute too. Send newspaper and magazine clippings by mail to Ellin Beltz, P.O. Box 1125, Ferndale, CA 95536 or hyperlinks to "ebeltz@ebeltz.net." And don't forget to check out my website. I've recently updated the Herpetological Names - Explained, my CHS and *Vivarium* column pages, and my local geology fieldtrips. Visit http://ebeltz.net one of these days and drop me a note to say "Hi!" The link is on the bottom of every page.

Herpetology 2006

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editor assumes full responsibility for any errors or misleading statements.

LADDER SNAKE REPRODUCTIVE ECOLOGY

J. M. Pleguezuelos and M. Feriche [2006, Herpetological Journal 16(2):177-182] note that organisms that produce more than one newborn at every reproductive event must choose between two options with respect to their reproductive output: to produce a few large or many small young. The decision will be influenced by the spectrum of prey sizes available to young. The ladder snake (*Rhinechis scalaris*), a heavy-bodied Mediterranean colubrid, is well suited for the study of its reproductive ecology under this cue: the species consumes only endothermic prey and therefore hatchlings of this gape-size-limited predator must be large enough to prey on small mammals. The authors analyzed the reproductive ecology of this species, a quasi-endemic to the Iberian Peninsula, by studying a large sample of specimens collected in the southeastern Iberian Peninsula. Most adult females (83.3%) reproduced in sequential years, with vitellogenesis beginning in early spring, and oviposition occurring in the first half of July. In contrast to the general rule for most temperate snakes, no depletion in fat bodies was observed during the period of vitellogenesis, females exhibiting a very high level of fat-body reserves throughout all months of the activity period. compared with other Mediterranean species, hatching occurred very late in the activity season (October), newborns were rather heavy bodied, with very high fat-body levels, and apparently did not feed until the following spring. The data suggest that female *R. scalaris* produce hatchlings large enough to enter hibernation without feeding, perhaps thus increasing the survival rate of juveniles in their first calendar year. They probably need to devote their reserves at hatching to growth and to better face their first, bulky prey.

MARBLED SALAMANDER NEST SITE SELECTION

D. A. Croshaw and D. E. Scott [2006, Amphibia-Reptilia 27(3):359-364] note that nest site selection is an important part of adult reproductive behavior because growth and survival of young are often affected by the local environment. In terrestrially nesting marbled salamanders, *Ambystoma opacum*, nest elevation is likely important to reproductive success because it is directly related to the time of hatching. The authors tested the hypothesis that females choose nest sites based on elevation and its correlates by controlling the availability of nesting cover, a potentially important factor in nest site selection which often covaries with elevation. Breeding adults were confined to field enclosures in which natural nesting cover had been removed and replaced with equal proportions of artificial cover in each of three elevation zones. In four enclosures that spanned from lowest to highest areas of a wetland breeding site, females used artificial nesting cover most frequently at low elevations. These results contrast with other studies in which intermediate elevations had highest nest densities, but are consistent with a conceptual model in which opposing selective forces result in locally adapted nest site selection.

FUNCTIONS OF FOAM NESTS

T. Kusano et al. [2006, Herpetological Journal 16(2):163-169], using both field observations and laboratory experiments, examined thermal and nutritional functions of the arboreal foam nests of the Japanese treefrog *Rhacophorus arboreus* in early summer in the years 2000–2002. The temperature at the center of the nests and ambient air temperature were monitored using a data logger in the field for several days. The results showed thermal regulation by the foam mass; the inside of the nests was maintained up to 6°C cooler by the foam masses when the ambient temperature was high (> 25°C). Laboratory experiments also showed that hatching success of the embryos was very low at high temperatures (near 30°C). The insulation effect of the foam nests is, therefore, considered to be adaptive for *R. arboreus*. Hatchling growth was examined for a week under different food conditions: water only (no food), foam mass and boiled lettuce. Larvae showed no significant growth without food, but they grew to be 2–5 times heavier in dry body mass than hatchlings when supplied with foam mass or boiled lettuce. Foam mass proved to be at least as effective as boiled lettuce as a food for hatchlings. The study demonstrates the thermal and nutritional effects of the foam nests of *R. arboreus*.

HABITAT USE IN TWO NEWT SPECIES

J. K. Skei et al. [2006, Amphibia-Reptilia 27(3):309-324] note that amphibian populations are declining at an alarming pace in many parts of the world. Consequently, as part of the strategy for establishing a 360 km^2 conservation and reference area for amphibians in central Norway, 341 lentic water bodies were surveyed to investigate and briefly describe their hydrography and the occurrence of the newts *Triturus vulgaris*. In particular the authors investigated the factors that could explain the presence of the respective newt species, including biotic and abiotic factors. The multiple logistic regression analyses suggested that the presence of *T. cristatus* was best explained by altitude and ion concentration, both in a nonlinear fashion, whereas fish had a negative effect on *T. cristatus*, which was never found coexisting with fish. The presence of *T. vulgaris* was best explained by altitude (linear relationship) and ion concentration (convex relationship), besides the occurrence of *T. cristatus*. *Triturus vulgaris* was occasionally found to occur at low densities in ponds having fish. For both species the probability of presence was higher when the opposite newt species was present. Both species were influenced by pH in a convex nonlinear fashion with highest probability of presence around pH 6.5. This study area is valuable for conservation, monitoring and reference for marginal amphibian populations. Any decline in their abundance would be discovered relatively quickly, and likely causes could be inferred. It can also serve as a reference area for future comparative studies of amphibians elsewhere.

Unofficial Minutes of the CHS Board Meeting, November 17, 2006

Mike Dloogatch called the meeting to order at 7:32 P.M. Board members Rich Crowley, Betsy Davis, Deb Krohn, Andy Malawy, Linda Malawy and Erik Williams were absent. A quorum was not present.

Officers' Reports

Recording Secretary: Zorina Banas read the minutes of the October 13 board meeting.

Treasurer: Mike Dloogatch distributed and went over the October financial reports.

Membership Secretary: Mike Dloogatch reported that the membership stands at 551 for October.

Vice-president: Mike Dloogatch mentioned plans for speakers for next year's meetings. Mike also discussed the December 27 holiday party.

Committee Reports

Shows: The Peggy Notebaert Nature Museum would like the CHS to be there on November 26. The December shows at the Notebaert will be on the 2nd and 3rd. Anyone interested in displaying reptiles or helping out at our shows should contact Jenny Vollman.

Monthly Raffle: Josh Chernoff was pleased with the October raffle. Anyone with items to donate should contact Josh beforehand. Cindy Rampacek will be getting in contact with Amazon and other corporations to ask for donations.

Library: Mike Dloogatch reported that Marybeth Trilling has been working with the CHS library getting it in order and that Steve Sullivan has asked Marybeth to be the librarian next year.

Esther Lewis plaque: Mike reported that Steve Sullivan has been delaying ordering the plaque because he's been uncertain about the status of the library cart. But he's happy with the new casters and plans to order the plaque soon.

List of Vets: Cindy Rampacek reported that she is in the process of alphabetizing the list.

Group trips: Jason Hood discussed the yearly CHS trip. Mike Dloogatch suggested the Louisville Zoo and Cindy Rampacek asked about the Shedd Aquarium. Jason said he will be working on that.

New Business

Pet Expo: Cindy Rampacek distributed fliers for the 2007 Great Lakes Family Pet Expo, to be held in Milwaukee on February 10. Anyone interested in helping with the CHS display, please contact Cindy.

December meeting: The board discussed the December 27 party/meeting.

Grants: Mike Dloogatch reported one proposal has been received so far. December 31 is the deadline for proposals.

Marybeth Trilling mentioned that she is working on getting more multimedia for the CHS library. If anyone has any suggestions please contact Marybeth. Mike Scott mentioned getting some National Geographic video series. Kira Geselowitz suggested Steve Irwin information. Marybeth suggested information on paleontology and frogs from Illinois from Deb Krohn.

Round Table

Cindy Rampacek thanked everyone who participated in Snake Day at the Milwaukee Public Museum.

Mike Dloogatch read an email that he had received alerting herpers that Kristin M. Stanford has filmed a segment on her work with the Lake Erie watersnake for the Discovery Channel show *Dirty Jobs*. The show premiers Tuesday, November 28, at 9:00 P.M. Kristin has been told that it will be the last segment. Kristin looks forward to hearing reactions from those who watch the show. < theislandsnakelady@yahoo.com>

Mike Dloogatch mentioned that a CHS member, William A. Black of St. Cloud, Florida, has written a letter to Professor Hobart M. Smith objecting to the collection of amphibians and reptiles from the state of Chihuahua, Mexico, described in the October *Bulletin* [41:185-186]. A copy of this letter was sent by Mr. Black to the CHS board of directors. Mike made it clear that he did not agree with the points raised by Mr. Black in his letter.

The meeting was adjourned at 8:20 P.M.

Respectfully submitted by Zorina Banas, Recording Secretary

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For sale: books. *Birds of Pine-Oak Woodland in Southern Arizona and Adjacent Mexico* by Joe T. Marshall, Jr., 1957, 125 pp., 26 figs., several color plates, contains descriptions of vegetation types in border mountain ranges such as the Huachucas and Chiricahuas, hardbound, $32; *A Field Guide to Reptiles and Amphibians of the United States and Canada East of the 100th Meridian* by Roger Conant, 1958 (first printing), 366 pp., 40 color plates, range maps, hardbound, no DJ, some wear, but good condition, $40; *Records of the American-Australian Scientific Expedition to Arnhem Land, vol. 4 - Zoology*, 1964, 533 pp., many b&w and color plates, mollusks, fishes, amphibians and reptiles (35 pp. authored by Francis Mitchell), birds and mammals, torn DJ, but otherwise excellent condition, hardbound, $90; *Eric Worrell's Australian Reptile Park*, 1968 (7th ed.), 48 pp., many b&w photos, guide book including info on venoms and snakebite treatment, back cover detached, softbound, $7; *The Reptiles* by Archie Carr, 1977 (1963), 192 pp., many b&w and color photos, an interesting account by this noted herpetologist and writer, hardbound, $9. All books in excellent condition unless otherwise noted. Postage and handling $2.50 for orders under $25, free for orders $25 or more. William R. Turner, 7395 S. Downing Circle W., Centennial, CO 80122, (303) 795-5128, e-mail: toursbyturner@aol.com

Herp tours: Adventure trips to **Madagascar**! Journey somewhere truly unique to seek and photograph nature on the world's least-studied mini-continent. For maximum herp fun and discovery, join Bill Love as we go where few people will ever venture in their lives. Let his experience assure a comfortable tour finding the most colorful and bizarre species on the planet! Get all the details at Blue Chameleon Ventures' comprehensive new website: < http://www.bluechameleon.org> , E-mail: bill@bluechameleon.org, or call (239) 728-2390.

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Virtual Museum of Natural History at www.curator.org: Free quality information on animals—emphasis on herps—plus expedition reports, book reviews and links to solid information. Always open, always free.

Wanted: I'm looking for my soulmate. I want to settle down to a family before it is too late. But I have this problem. . . . When we get into hobbies and interests: old popular records, jazz and show tunes, and antique electronics are fine, but when I mention turtles, "What, are you crazy?" So maybe this is a better place to look. Please don't try to separate me from my turtles—at least not most of them. If interested, please drop a line to Ellis Jones, 1000 Dell, Northbrook IL 60062, telling a bit about yourself and giving a phone number.

Line ads in this publication are run free for CHS members—$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (773) 588-0728 evening telephone, (312) 782-2868 fax, E-mail: MADadder0@aol.com

NO excuses

ReptileFest 2007

April 14-15

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, December 27, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **This meeting will be a holiday party.** The CHS will provide soft drinks and snacks. If you would like to bring something edible to share with the group, you are invited to do so. If you would like to bring an animal to show off to the group, you are encouraged to do that as well. This will be a chance to socialize all evening and get to know your fellow members a little better.

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago's newest museum — the **Peggy Notebaert Nature Museum**. This beautiful new building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the January 19 board meeting, to be held at the North Park Village Administration Building, 5801 North Pulaski Road, Chicago. To get there take the Edens Expressway, I-94, and exit at Peterson eastbound. Go a mile east to Pulaski, turn right and go south to the first traffic light. Turn left at the light into the North Park Village complex. At the entrance is a stop sign and a guardhouse. When you come to a second stop sign, the administration building is the large building ahead and to your left. There is a free parking lot to the left and behind the building.

The Chicago Turtle Club

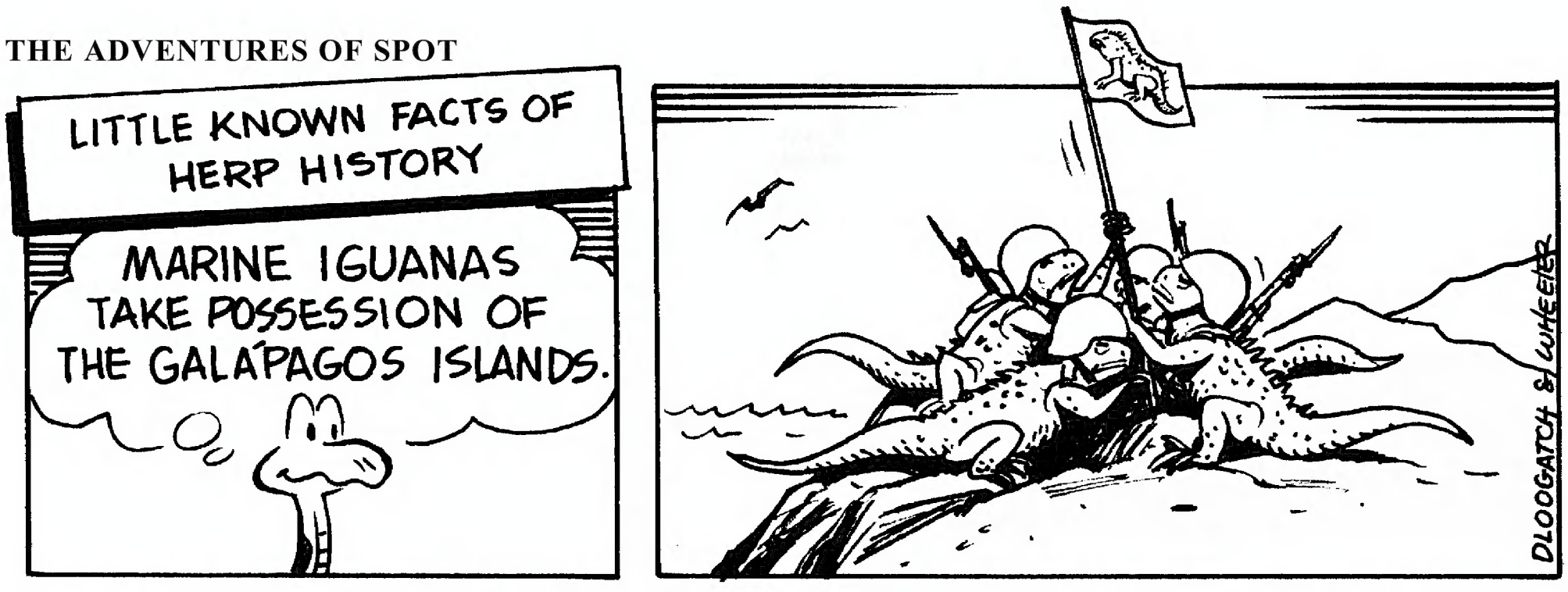
The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info call Lisa Koester, (773) 508-0034, or visit the CTC website: http://www.geocities.com/~chicagoturtle.

ELECTION RESULTS

As a result of the elections held November 29, 2006, the following officers and members-at-large will serve on the CHS Board of Directors for the year 2007.

President:	Linda Malawy	Membership Secretary:	Mike Dloogatch
Vice-president:	Steve Sullivan	Sergeant-at-arms:	Jason Hood
Treasurer:	Andy Malawy	Members-at-large:	Josh Chernoff
Recording Secretary:	Kira Geselowitz		Deb Krohn
Corresponding Secretary:	Cindy Rampacek		Jenny Vollman
Publications Secretary:	Erik Williams	Immediate Past President:	Rich Crowley

THE ADVENTURES OF SPOT



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